

Forum: GA1

Issue: Preventing conflicts caused by new shipping routes and access to new energy resources in the Arctic

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Introduction

The large section of ice, ocean, and land situated on the North Pole that is the Arctic is and has been a highly contested area for many countries around the globe and is home to rich deposits of natural resources and a long history of indigenous culture.

As climate change has worsened, melting ice caps have revealed new resources and many delegations wish to take advantage of this potential. With rising costs and domestic issues, many delegations have had their interest dwindle as administrations look inward, but the large economic potential of this area does not outweigh the negative environmental effects that the exploitation of these resources would bring about.

Mostly covered by ice year-round, the Arctic is home to various native species all around the continent. Additionally, there are also several indigenous populations that have inhabited the area. Historically, these populations have been active in local trade and have been negatively impacted by exploration and expansion attempts for hundreds of years threatening tribal sovereignty and climate change negatively affecting their livelihood leading to food insecurity.

An important geographical feature of the Arctic is the Northwest Passage. This passage is an integral shipping route in the Northern Hemisphere, giving ships the opportunity to pass from the Atlantic Ocean to the Pacific Ocean. This is one of the only options for ships who wish to traverse from the Atlantic to the Pacific, with the only other options being the Panama Canal or the Drake passage much more to the South.

Apart from shipping routes, the Arctic has major value in some of its exports and resources. Many fisheries continue to fish in the Arctic Ocean and have made large profits. The Arctic is also bountiful in mineral resources, with there being several deposits of oil, gas, coal, iron ore, zinc, lead, and nickel.

Apart from the Northwest Passage, there are some other shipping routes that are of lesser note. This includes the Northern Sea Route and the North-East Passage. With global warming melting many of the glaciers in this region, researchers have predicted the possibility of a Central Arctic Shipping Route.

Definition of Key Terms

Arctic Circle

Any region surrounding the North Pole. This includes the Arctic Ocean, the Arctic ice shelf, and

some northern areas of Greenland, Canada, and Russia.

Northwest passage (NWP)

Sea passage from the Atlantic Ocean to the Pacific Ocean that passes through northern areas of Canada.

Northeast passage (NEP)

The sea passage that goes along the coasts of Norway and Russia connecting the Atlantic and Pacific Oceans.

Transpolar Sea Route (TSR), Trans-Arctic Sea Route, Central Arctic Sea Route

Synonymous terms for a future sea passage in the Arctic. Due to global warming or seasonal changes, the Arctic ice shelf could melt and allow boats to pass through directly through the Arctic, as opposed to routes such as the Northwest passage.

Energy Resources

Materials that can be used to make energy. Energy is “a quantitative property, which produces an output or a force that can be analyzed” (“Energy Resources”)

Exclusive Economic Zone (EEZ)

A region in the ocean under the jurisdiction of a specific Member State where the rights to the use of said region for shipping and the extraction of natural resources are controlled solely by that nation.

Electrical Microgrid

An electrical system in which a town or settlement produces its own electricity and is not connected to a larger power grid.

Background Information

The usage of energy and mineral resources in the Arctic

Civilizations have attempted to live off of the Arctic for hundreds of years. There is evidence showing that Indigenous civilizations like the Saami, Nenet, and Inuit have inhabited the continent for many years (“Indigenous Peoples”). However, with the rise of seafaring and imperialism, the ‘discovery’ of this brand new icy landmass piqued many nation’s interests. While this new continent was rich in minerals such as coal, iron, zinc, lead, nickel, and other materials such as oil and stone, the frigid weather made it too difficult to efficiently and safely extract it. Because of this, using the Arctic for its energy and mineral resources was a rare occurrence. As the world became more globalized, nations recognized the potential in this continent and garnered the budget to effectively start attempting to profit off of it. With this, a new issue was born: Who actually owns the Arctic?

Dating back to 1925, land claims by delegations in the Arctic Council slowly divided the Arctic. This includes claims by Canada, Denmark, Greenland, Norway, Finland, Iceland, the United States, and the Russian Federation. The claims to areas of the Arctic were further altered by the United Nations Convention on the Law of the Sea, establishing EEZs and guidelines for determining the ownership of sea territory. The United States is the only nation in the Arctic that has signed the treaty, but not ratified

it. All the other nations have both signed and ratified the treaty presented by the convention.

Additionally, current settlements in the Arctic also need to somehow attain energy. Currently, they use diverse methods such as fossil fuels, wind power, solar power, and nuclear power. However, these types of energy are useful in different contexts. For example, due to the 'Polar Night' phenomenon, settlements cannot solely depend on renewable solar energy year-round. Cheap fossil fuels such as coal and oil are great for heat generation but are harmful to the surrounding environment. The usage of these resources has been attributed to 'Arctic Haze', where chemical pollutants released from burning oil and coal permeate the higher-latitude Arctic atmosphere. Nuclear power is a safe and efficient energy alternative when used correctly, although many Arctic communities require an off-grid system and therefore struggle to safely install such technology.

Apart from Arctic Haze, the usage of such energy resources can heavily affect local surrounding species and populations, depending on what and how they are used. Mining for metal can lead to destruction of delicate Arctic ecosystems like those present in Alaska in the United States and in Sveagrava in the Svalbard region of Norway. Additionally, such operations normally result in heavy water, air, and noise pollution. This can further harm any animal species living near any area that is being harvested for its materials.

The frequency of isolated microgrids makes the use of renewable energy resources that can be harnessed at a smaller scale more desirable. A more frequently used form of renewable energy in the Arctic is that of solar power. It is relatively simple and cheap to produce enough electricity to supply the microgrids of Arctic communities through the use of solar panels, especially when compared to fossil fuels. The negative environmental consequences of solar panels caused by their production are also lessened, as the cold environment prolongs the lifespan of each individual solar panel.

Aside from energy production, another environmental detriment to the Arctic is mining. The primary minerals being mined in the Arctic regions are gold, copper and zinc, which heavily affects the soil and water quality of the surrounding region. Additionally, many of the machines involved in harvesting these resources use gasoline as fuel, adding air pollution to the consequences of mining in the region. This has a heavy effect on the livelihoods and health of residents of the region, by both driving out the wildlife and directly causing health issues through pollution.

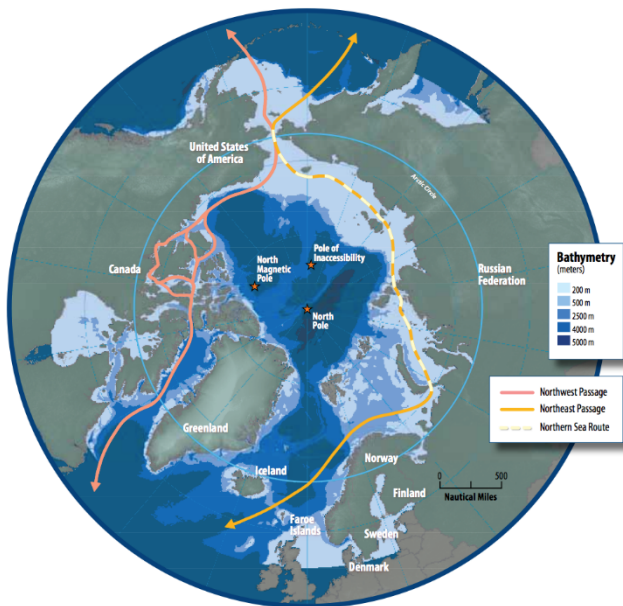
There are also deposits of natural gas and oil in the Arctic, contributing to the environmental issues. This, aside from the problems caused by the use of fossil fuels, brings about the concern of accidents while transporting the fossil fuels negatively affecting the wildlife and causing broad environmental damage. This also causes broader political tensions, as these resources are located within disputed EEZs in the Arctic. The possibility for conflict brought about by unauthorized resource harvesting and investigations has led to tension within the nations in the region.

The usage and creation of shipping routes through the Arctic

The multiple shipping routes charted through the Arctic are valuable assets to the international shipping market. Delegations such as Russia, China, Canada, Norway, and Finland, as well as multiple

international shipping companies use specialized 'icebreaker' boats to quickly transport items.

There are currently three important Arctic shipping routes: The Northwest Passage, the Northeast Passage, and the Transpolar Sea Route.



These passages are important to the international community because they offer some of the fastest and most efficient transport from the Atlantic Ocean to the Pacific Ocean. The only other ways of doing this are to go south of Chile and Argentina and through the difficult waters of the Drake Passage, go through the Panama Canal, or inefficiently go through the Indian Ocean.

The Northwest Passage goes through Canadian territory and is therefore regulated by the delegation of Canada. There have not been many conflicts surrounding the Northwest Passage aside from recent conflicts between the United States and Canada

surrounding the sovereignty of the area. The area is claimed by Canada and belongs to Canada under the United Nations Convention on the Law of the Sea in 1982, which determined the ownership of disputed portions of the ocean. The United States had two nuclear-powered submarines enter the NWP without prior authorization from Canada in 2005, causing conflict between the two nations. This resulted in a further militarization of the area, which continues to this day.

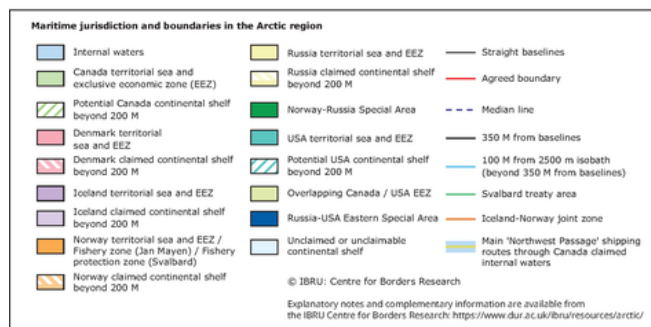
The Northeast Passage is significantly less popular for shipping compared to the NWP, resulting in it being less disputed than the other shipping routes. The environmental concerns are more severe, however, as the majority of the commerce going through the NEP is fossil fuel related. These mostly consist of crude oil and natural gas, either in a condensate or a liquid. Additionally, there is a lack of infrastructure present in the surrounding regions to properly address oil spills that occur within the NEP or to rescue sailors. The NEP is largely unproblematic from an international relations perspective, but the environmental concerns still stand.

The Transpolar Sea Route is not currently in use, as heavy icebreaker ships are required for the route to be navigable. It sits almost entirely in international waters, but the equipment requirements far outweigh the economic benefits of a lack of regulation. The viability of this route for mainstream economic use would increase as the planet warms due to climate change as the ice preventing most ships from passing through would melt, or at least thin. The TSR is significantly shorter than the other routes, making it a possibly desirable method for transporting goods in the future.

The usage of the Arctic for research and surveillance

The Arctic is a high-tension region with conflicting territorial claims by several nations

establishing a heavy military presence through military bases containing both naval and air forces. The primary countries with a military presence are the Russian Federation, Canada, and the United States of America. The Russian Federation has an infantry regiment of 8,000 people stationed at the town of Pechenga near the border of Norway, providing control of the nearby section of the Arctic while also threatening Norway. The United States has two nuclear submarines patrolling Arctic waters within its territorial claims while providing information for its environmental research programs. The military presence of the United States in the Arctic has been reduced by its involvement in other international conflicts, but it is still a significant force in the region. Additionally, the United States has a military base stationed in Denmark, providing monitoring for the United States' ballistic missile defense program. Canada has been running regular military training exercises and operations within the Arctic region in addition to the expansion of military and surveillance infrastructure within the region. The Over-the-Horizon Radar system is a planned Canadian project intended to reinforce the current missile protection system that is already present. The project consists of two cutting-edge radar systems constructed in both the United States of America and the southern regions of Canada. Additionally, Canada intends to expand their military infrastructure in the Arctic with the Defense of Canada Fighter Infrastructure project to allow for the use of newly acquired fighter jets. Norway has some coast guard regiments patrolling in the Arctic.



All the Arctic countries have territorial claims in the region beyond the 200 nautical mile limit posed by the United Nations Convention on the Law of the Sea in 1982. The main disputed claims are in the exclusive economic zones in which each Member State has rights to the use of its natural resources and jurisdiction of international shipping within its territory.

The surveillance equipment present in the Arctic is sometimes used in research, as demonstrated by the United States' Submarine Arctic Science Program (SCICEX). SCICEX is used to study the conditions of Arctic waters and the bathymetry of the ocean in the Arctic.

Major Countries and Organizations Involved

International Maritime Organization

The International Maritime Organization (IMO) is a United Nations “global standard-setting authority for the safety, security and environmental performance of international shipping.” (“Introduction to”)

Arctic Council

Established in 1996 by the Ottawa Declaration, any decisions regarding the Arctic require a general consensus between all its eight members. These members, which include Canada, The Kingdom of Denmark, Finland, Iceland, Norway, The Russian Federation, Sweden, and The United States, are the delegations that are most affected by any actions done in the Arctic. (“About the”)

Canada

Canada has made several territorial claims in the Arctic Circle and has control over the NWP according to UNCLOS despite claims to the contrary. Canada has been building up its surveillance networks and military infrastructure in the Arctic for the past few decades following infringements on maritime law in its claimed territory.

United States

The United States has some claims in regions of the Arctic Circle but is mostly concerned with the commerce of the region. The United States has disputed some territorial claims with Canada, but it is mostly focused on securing its own territory in region due to other geopolitical conflicts and for the use of the trade routes present in the region. It also has military alliances with Denmark, Canada, and Norway.

Russian Federation

The Russian Federation has made several territorial claims that conflict with that of other nations, and it has claimed locations that are rich in fossil fuel deposits. It has also completed several military training exercises in the Arctic and demonstrated its naval power in the region.

Denmark

Denmark has made territorial claims on the basis of its ownership of Greenland that conflict with Canada and the Russian Federation. Denmark has not heavily militarized its to secure its claims and has instead decided to use the UN to settle disputes.

Norway

Norway has not made conflicting claims with other nations but is very close in proximity to Russia and the training exercises that have taken place in the Arctic. The issue at hand is not simply a matter of the economic benefits gained by having access to the Arctic shipping routes, but it is a matter of national security due to the threats posed by Russia as signaled by its conflict with Ukraine, training exercises, and military stationed near the Norway-Russia border.

Timeline of Events

| Date | Name | Description |
|------|------|-------------|
|------|------|-------------|

| Month, X th , Year | Name of Event | The description as well as relevance of the event should be written in sufficient detail. |
|-------------------------------|--|---|
| February 9th, 1920 | Svalbard Treaty | The Svalbard Treaty of 1920 granted Norway ownership of the Svalbard Archipelago after disputes between Norway, England, and Denmark. This marks the first modern international treaty regarding the Arctic region, making it significant. |
| 1985 | | A U.S Coast Guard ship passed through the Northwest Passage without permission from the Canadian government, which upset the Canadian public and leaders. The United States insisted that the waters were international, further increasing tension |
| 1986 | | Canada released a statement reaffirming its rights to the waters of the Northwest Passage |
| 1988 | Arctic Cooperation Agreement | Canada and the United States settled the dispute surrounding the use of the Northwest Passage by having the United States agree to asking Canada for permission before conducting research in the area |
| June 14th, 1991-1997 | Arctic Environmental Protection Strategy | The Arctic Environmental Protection Strategy was formed by nations in the Arctic Circle to prevent the ecosystems of the Arctic from being further damaged by climate change. It established the Arctic Council in 1991, and ran as a standalone organization until 1997, where it was merged into the Arctic Council |
| September 19th, 1996 | Ottawa Declaration | The Ottawa Declaration created the Arctic Council, which is the most prominent group through which disputes surrounding the Arctic are settled. It addresses both environmental issues and some political disputes. |
| December 20th, 2001 | Russia Claims Lomonosov Ridge | Russia claimed that the Lomonosov ridge was theirs as a result of its connection to their continental shelf, which was announced but not filed using UNCLOS guidelines. This territory is rich in natural resources |

| | | |
|---------------------|--------------------------------------|--|
| | | and includes the North Pole. |
| December 2013 | Canada Claims Lomonosov Ridge | Canada Announces their claims of ownership of the Lomonosov Ridge, with similar reasoning as that of Russia and Denmark |
| December 16th, 2014 | Denmark files Lomonosov Ridge Claim | Denmark officially files their claim of the Lomonosov Ridge with the UN under UNCLOS laws, the claims made by the other nations disputing it were announced but had no legal weight |
| March 28th, 2022 | Russian Submarines in Arctic Circle | Three Russian missile submarines surfaced during military exercises, indicating the formation of new military strategies that adapt to the thinning ice brought about by global warming |
| April 25th, 2022 | Norway Training Exercise | Norway hosted a training exercise with over 50,000 troops from both the Navy and Air Force in response to the threats indicated by the Russian military exercises. |
| May 24th, 2022 | Russia Suspended from Arctic Council | Russia was suspended from the Arctic Council as a result of the conflict in Ukraine. This slowed progress and caused issues with the continued operation of the council, but the Arctic Council continues nonetheless. |

Relevant Treaties and Events

- Svalbard Treaty, 9 February 1920
- The Antarctic Treaty, 1 December 1959
- The Arctic Environmental Protection Strategy, 14 June 1991
- United Nations Framework Convention on Climate Change, 4 June 1992
- International Convention for the Control and Management of Ships' Ballast Water and Sediments, 13 February 2004
- Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, 2003
- United Nations Convention on the Law of the Sea, 10 December 1982

Previous Attempts to solve the Issue

International code for ships operating in Polar Waters (Polar Code)

Guidelines entered in 2017 by the International Maritime Organization. It covers the full range of

“design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles” (“International Code”).

Arctic Environmental Protection Strategy (AEPS)

The AEPS is an international agreement amongst nations with territories in the Arctic to focus more on the protection of the Arctic’s ecosystems whilst promoting international collaboration to ensure that the environment of the Arctic is not harmed further by the effects of climate change. The meetings put in place by the AEPS led to the creation of the Ottawa Declaration in 1996, which created the Arctic Council.

United Nations Convention on the Law of the Sea (UNCLOS)

The UNCLOS is a UN organization that determines the territorial rights of the sea as a whole by setting guidelines based on underwater geography. The convention’s decision from 1982 applies to the Arctic Sea as well, as several nations have determined their claims through UNCLOS guidelines. While the organization no longer exists today, its guidelines are still in use and are considered to be maritime law.

Possible Solutions

Solutions regarding usage of energy and mineral resources in the Arctic

To prevent further developments on the destruction of Arctic ecosystems and the effects of air pollution on Arctic Haze, restrictions could be placed on the usage and harvesting of coal and other fossil fuels. Alternatively, more emphasis could be placed on finding methods of doing this with a lesser impact on the environment. Additionally, the power and efficiency of nuclear power cannot remain unmentioned. If used correctly, an energy grid based on modular nuclear reactors could fuel entire settlements with little environmental impact relative to that of fossil fuels.

Solutions regarding the usage and creation of shipping routes through the Arctic

Delegations could focus on the fact that while useful, the Transpolar Sea Route would be a late-stage effect of Climate Change, disrupt local marine ecosystems, and would create multiple logistical issues- and therefore focus on not using or perpetuating its existence.

However, delegations could also focus on the fact that the creation of this route is unavoidable, and instead try to figure out the safest way to use it. In this case, effort would be done to minimize the effect of shipping on marine ecosystems, and a focus would be made on who currently has jurisdiction over the route. Additionally, this route could invalidate the usage of the Northwest and Northeast Passages, further simplifying territorial and regulatory debates, as well as benefit the marine ecosystems of Canada and Russia by reducing shipping traffic.

Solutions regarding usage of the Arctic for Research and Surveillance

A possible route to the demilitarization of the Arctic could be through the use of already existing international agreements between nations in the Arctic. Strengthening the ability of the Arctic Council, for

example, could prevent further disputes between nations over territorial claims in the Arctic, as all of the countries that may come into conflict already participate in the Arctic Council. Delegating territorial disputes through the council could be effective, as the environmental situation in the Arctic is heavily influenced by the industrial and military development of the region.

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